



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0471; Project Identifier MCAI-2021-01219-T; Amendment 39-22253; AD 2022-24-13]

RIN 2120-AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2021-22-04, which applied to all Airbus SAS Model A318-111, -112, -121, and -122 airplanes, Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes, Model A320-211, -212, -214, -216, -231, -232, and -233 airplanes, and Model A321-111, -112, -131, -211, -212, 213, -231, and -232 airplanes. AD 2021-22-04 required a one-time eddy current conductivity measurement of certain structural parts of the outer flaps to determine if the incorrect alloy was used, and replacement if necessary; and also required a one-time eddy current conductivity measurement of certain other structural parts of the outer flaps to determine if the parts were properly heat treated, and replacement if necessary. This AD was prompted by the issuance of an updated list of suspected parts, including those that may have been improperly heat treated. This AD continues to require the actions in AD 2021-22-04, and requires using an updated list of suspected parts, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. This AD also limits the installation of affected parts. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0471; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For material incorporated by reference (IBR) in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; website easa.europa.eu. You may find this IBR material on the EASA website at ad.easa.europa.eu.

- You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0471.

FOR FURTHER INFORMATION CONTACT: Hye Yoon Jang, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South 216th St., Des Moines, WA 98198; telephone 817-222-5584; email hye.yoon.jang@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2021-22-04, Amendment 39-21777 (86 FR 64801, November 19, 2021) (AD 2021-22-04). AD 2021-22-04 applied to all Airbus SAS Model A318-111, -112, -121, and -122 airplanes, Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes, Model A320-211, -212, -214, -216, -231, -232, and -233 airplanes, and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. The FAA issued AD 2021-22-04 to address structural parts that may not meet the certified life limit, which could result in failure of the flap trailing edge and reduced controllability of the airplane.

The NPRM published in the *Federal Register* on May 5, 2022 (87 FR 26702). The NPRM was prompted by AD 2021-0229, dated November 5, 2021, issued by EASA (EASA AD 2021-0229) (referred to after this as the MCAI). The MCAI states that a quality control review determined that the wrong aluminum alloy was used to manufacture several structural parts. The MCAI also states that an updated list of suspected parts, including those that may have been improperly heat treated, has been issued.

In the NPRM, the FAA proposed to continue to require the actions in AD 2021-22-04, and to require using an updated list of suspected parts, as specified in EASA AD 2021-0229. The NPRM also proposed to limit the installation of affected parts. The FAA is issuing this AD to address structural parts that may not meet the certified life limit, which could result in failure of the flap trailing edge and reduced controllability of the airplane. See the MCAI for additional background information.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from United Airlines who supported the NPRM without change.

The FAA received additional comments from one commenter, Delta Air Lines (DAL). The following presents the comments received on the NPRM and the FAA's response to each comment.

Request for Clarification on Parts Installation Limitation

DAL requested that the FAA clarify if the exception for the parts installation limitation stated in paragraph (h)(4) of the proposed AD should be used in lieu of or in addition to the parts installation limitation language in paragraphs (6) and (7) of EASA AD 2021-0229. DAL explained that paragraph (h)(4) of the proposed AD is an exception to the requirements of paragraphs (6) and (7) of EASA AD 2021-0229, which mandate a parts installation limitation for affected outer flaps and flap tabs. DAL reasoned that the language in paragraph (h)(4) of the proposed AD could be confusing for operators because it does not specify whether the parts installation limitation should be used in lieu of or in addition to paragraphs (6) and (7) of EASA AD 2021-0229. DAL explained that because paragraphs (6) and (7) of EASA AD 2021-0229 mandate parts installation limitations, it interprets the exception in paragraph (h)(4) of the proposed AD is intended to be used in lieu of paragraphs (6) and (7) of EASA AD 2021-0229. DAL requested confirmation of this interpretation and, if necessary, a revision of the verbiage in paragraph (h)(4) of the proposed AD.

The FAA agrees to clarify. Paragraph (g) of this AD states that operators must comply with all required actions and compliance times specified in, and in accordance with, EASA AD 2021-0229 except as specified in paragraph (h) of this AD. Paragraph (h)(4) of this AD specifies the exception regarding parts installation limitations and is

intended to be used in lieu of the parts installation limitations specified in paragraphs (6) and (7) of EASA AD 2021-0229. The FAA has not changed the AD in this regard.

Request for a New Exception and a New Definition for Suspected Parts

DAL requested that the FAA modify paragraph (h) of the proposed AD to include a new exception to EASA AD 2021-0229 that allows operators to use the part manufacturing date when determining whether a part is a “serviceable part,” a “suspected improper heat treatment (IHT) part,” or a “suspected wrong material (WM) part,” as defined in EASA AD 2021-0229.

DAL explained that in EASA AD 2021-0229, the definitions of “suspected IHT part” and “suspected WM part” are based on an operator’s ability to positively identify the serial number of the outer flaps and flap tabs. DAL added that, per these definitions, if a serial number cannot be identified, the part is considered suspect and is subject to all “Group 1” requirements. DAL pointed out that paragraph (4) of EASA AD 2021-0229 allows operators to exclude airplanes from the requirements of paragraph (1) of EASA AD 2021-0229 if the following criteria is met:

- Airplane manufacturer serial number is NOT listed in Appendix 1 or 2 of EASA AD 2021-0229.
- It has been determined through use of airplane delivery and/or maintenance records that no suspected IHT or WM part is installed on that airplane, provided the serial number of the part can be positively identified.

DAL added that paragraph (4) of EASA AD 2021-0229, like the definitions of “suspected IHT part” and “suspected WM part,” is based on an operator’s ability to positively identify the serial number of the outer flaps and flap tabs.

DAL reasoned that flap tab serial number data is not available in the airplane delivery records, so positive serial number identification cannot be completed without reviewing the physical data plate of the part. DAL noted that it is in the process of

inspecting the flap tab data plates to collect this information and has found that while in-service, the condition of the flap tab data plates (specifying serial numbers) has degraded such that the serial number cannot be positively identified. DAL noted that, in its experience, the part's date of manufacture is specified on the data plate and it stated that Airbus has confirmed that this correlates to the "reference date" column in Appendices 1 and 2 of EASA AD 2021-0229. DAL explained that in some instances where the part serial number cannot be positively identified, the part date of manufacture can be positively identified.

DAL noted that the "Reason" paragraph of EASA AD 2021-0229 states "From February 2013, Airbus implemented measures into the manufacturing processes to ensure detection and prevention of installation of improperly heat-treated parts or parts manufactured with wrong material." Because of this, DAL stated that it believes that any part manufactured after February 2013 cannot be a "suspected part" since the manufacturing problem was resolved after this date. DAL reasoned that this aligns with Appendix 1 and 2 of EASA AD 2021-0229 "reference dates" (which correlate to the part's date of manufacture), where the latest date from either the suspected IHT part or suspected WM part is June 26, 2013. DAL stated that it believes that parts meeting the following criteria should not be considered a "suspect (IHT or WM) part":

- The serial number cannot be positively identified, but the date of manufacture is positively identified.
- The date of manufacture is NOT included in Appendix 1 or 2 of EASA AD 2021-0229 in the "reference date" column.

DAL proposed a revision to the proposed AD to allow using the date of manufacture to identify suspected parts and to revise the credit specified in paragraph (4) of EASA AD 2021-0229 to include a similar provision.

The FAA does not agree with the commenter's request. EASA, as the state of design authority, does not provide a provision for using the date of manufacturer for identification of suspected part. The commenter did not provide adequate supporting documentation to justify its request. However, under the provisions of paragraph (j)(1) of this AD, the FAA will consider requests for approval of an alternative method to identify suspected parts if sufficient data are submitted to substantiate that the proposal would provide an acceptable level of safety. The FAA has not changed this AD in this regard.

Conclusion

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data, considered the comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information Under 1 CFR Part 51

EASA AD 2021-0229 specifies procedures for a one-time eddy current conductivity measurement of certain structural parts of the outer flaps to determine if the incorrect alloy was used, and replacement if necessary; and a one-time eddy current conductivity measurement of certain other structural parts of the outer flaps to determine if the parts were properly heat treated, and replacement if necessary. EASA AD 2021-0229 also limits the installation of affected parts. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

The FAA estimates that this AD affects 63 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Retained actions from AD 2022-21-04	5 work-hours X \$85 per hour = \$425	\$0	\$425	\$26,775
New proposed actions	5 work-hours X \$85 per hour = \$425	\$0	\$425	\$26,775

The FAA has received no definitive data on which to base the cost estimates for the on-condition replacement specified in this AD.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by:

- a. Removing Airworthiness Directive (AD) 2021-22-04, Amendment 39-21777 (86 FR 64801, November 19, 2021); and
- b. Adding the following new AD:

2022-24-13 Airbus SAS: Amendment 39-22253; Docket No. FAA-2022-0471; Project Identifier MCAI-2021-01219-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2021-22-04, Amendment 39-21777 (86 FR 64801, November 19, 2021) (AD 2021-22-04).

(c) Applicability

This AD applies to all Airbus SAS airplanes identified in paragraphs (c)(1) through (4) of this AD, certificated in any category.

(1) Model A318-111, -112, -121, and -122 airplanes.

(2) Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes.

(3) Model A320-211, -212, -214, -216, -231, -232, and -233 airplanes.

(4) Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 57, Wings.

(e) Unsafe Condition

This AD was prompted by a quality control review, which determined that the wrong aluminum alloy was used to manufacture several structural parts and by the issuance of an updated list of suspected parts, including those that may have been improperly heat treated. The FAA is issuing this AD to address structural parts that may not meet the certified life limit, which could result in failure of the flap trailing edge and reduced controllability of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2021-0229, dated November 5, 2021 (EASA AD 2021-0229).

(h) Exceptions to EASA AD 2021-0229

(1) Where EASA AD 2021-0229 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where EASA AD 2021-0299 refers to August 19, 2020 (the effective date of EASA AD 2020-0174), this AD requires using December 27, 2021 (the effective date of AD 2021-22-04).

(3) The “Remarks” section of EASA AD 2021-0229 does not apply to this AD.

(4) Where paragraphs (6) and (7) of EASA AD 2021-0229 mandate a parts installation limitation, this AD requires the following parts installation limitation: As of December 27, 2021 (the effective date of AD 2021-22-04), only serviceable parts as defined in EASA AD 2021-0229 are allowed to be installed on any airplane.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2021-0229 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as

appropriate. If sending information directly to the International Validation Branch, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Validation Branch, FAA; or EASA; or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC)*: Except as required by paragraph (j)(2) of this AD, if any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(k) Related Information

For more information about this AD, contact Hye Yoon Jang, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South 216th St., Des Moines, WA 98198; telephone 817-222-5584; email hye.yoon.jang@faa.gov.

(I) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2021-0229, dated November 5, 2021.

(ii) [Reserved]

(3) For EASA AD 2021-0229, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; internet easa.europa.eu. You may find this EASA AD on the EASA website at ad.easa.europa.eu.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on November 16, 2022.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.